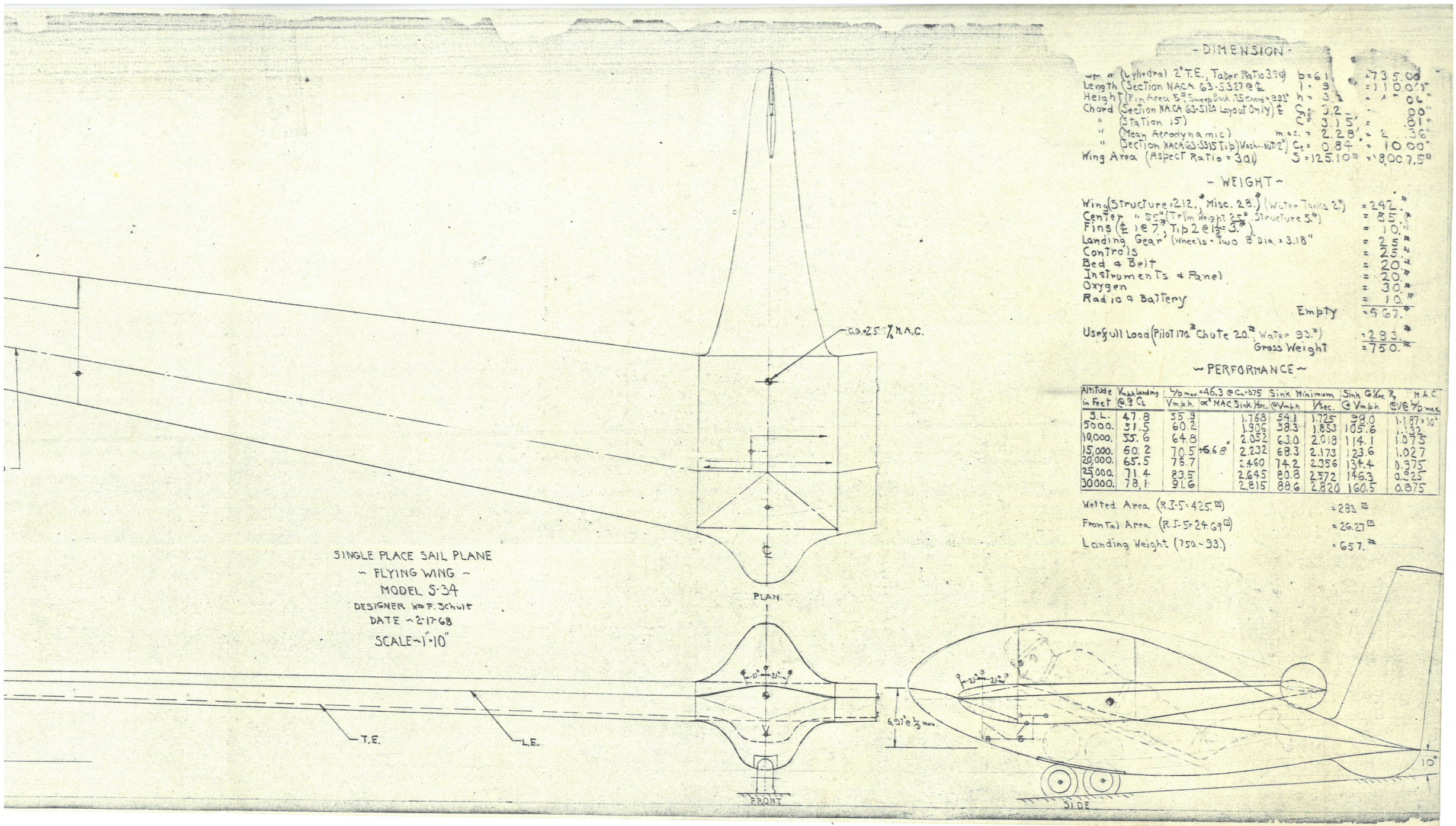

SINGLE PLACE SAIL PLANE

~ FLYING WING ~

MODEL S-34

DESIGNER Wm F. Schult

DATE ~ 2-17-68

SCALE ~ 1" = 10"

- DIMENSION -

Span (Dihedral 2° T.E., Taber Ratio 3:1)	b = 61'	=	735.00"
Length (Section NACA 63-3327 @ ℄	l = 9'	=	110.00"
Height (Fin Area 5□ Sweep Back 25 chord = 33°	h = 3'	=	36.00"
Chord (Section NACA 63-3129 Layout Only) ℄	C_r = 3.2'	=	38.00"
" (Station 15)	C = 3.15'	=	37.81"
" (Mean Aerodynamic)	m.a.c. = 2.28'	=	27.36"
" (Section NACA 63-3315 Tip) Wash-out 2°	C_t = 0.84'	=	10.00"
Wing Area (Aspect Ratio = 30)	S = 125.10□'	=	18,007.5□"

- WEIGHT -

Wing (Structure = 212.#, Misc. 28.#) (Water Tanks 2#)	=	242.#
Center " 55.# (Trim Weight 25.# Structure 5.#)	=	85.#
Fins (℄ ie 7.# Tip 2 @ ½ = 3.#)	=	10.#
Landing Gear (Wheels - Two 8" Dia. x 3.18"	=	25.#
Controls	=	25.#
Bed & Belt	=	20.#
Instruments & Panel	=	20.#
Oxygen	=	30.#
Radio & Battery	=	10.#
Empty	=	567.#
Usefull Load (Pilot 170.# Chute 20.#, Water 93.#)	=	283.#
Gross Weight	=	750.#

~ PERFORMANCE ~

Altitude in Feet	V mph Landing @ .8 C_L	L/D_{max} = 46.3 @ C_L = .375 V mph	α° M.A.C.	Sink Minimum Sink ft/sec.	@ V m.p.h.	Sink G ft/sec	Sink @ V m.p.h.	R_e @ V & L/D_{max}	M.A.C
S.L.	47.8	55.9		1.768	54.1	1.725	53.0	1.187	$\times 10^6$
5000.	51.5	60.2		1.906	58.3	1.853	105.6	1.132	
10,000.	55.6	64.8		2.052	63.0	2.018	114.1	1.075	
15,000.	60.2	70.5	+6.6°	2.232	68.3	2.173	123.6	1.027	
20,000.	65.5	75.7		2.460	74.2	2.356	134.4	0.975	
25,000.	71.4	83.5		2.645	80.8	2.572	146.3	0.925	
30,000.	78.1	91.6		2.815	88.6	2.820	160.5	0.875	

Wetted Area (R.J-5 = 425.□') = 283.□'

Frontal Area (R.J-5 = 24.69□') = 26.27□'

Landing Weight (750. - 93.) = 657.#